Stereo Restoration

GoPro 3-D

D. J. Johnson
The views shown here were provided by Tom Prosser. Their Kodachrome cardboard mounts are stamped “May 62”, but apart from that, they are unlabeled. I believe they were taken somewhere in California, possibly the Bay Area.

The fence around a construction site has been turned into an art gallery, with an assortment of paintings and even some pieces that are more sculpture-like. I wish the photographer had gotten a little closer to some of those three dimensional works with the stereo camera, but the overall area and the members of the public admiring the art were pretty well captured.

I suspect that the photographer may have been riding in the front passenger seat of the car in the third view, and the driver is waiting for the stereography to be finished!

A taste of the late ‘40s through the early ‘60s found in amateur stereo slides

This column combines a love of stereo photography with a fondness for 1950s-era styling, design and decor by sharing amateur stereo slides shot in the “golden age” of the Stereo Realist—the late 1940s through the early 1960s. From clothing and hairstyles to home decor to modes of transportation, these frozen moments of time show what things were really like in the middle of the twentieth century.

If you’ve found a classic ‘50s-era image that you would like to share through this column, please send the actual slide or a high-resolution side-by-side scan as a jpeg, tiff or photoshop file to: Fifties Flavored Finds, 5610 SE 71st, Portland, OR 97206. You can also email the digital file to strwld@teleport.com. If the subject, date, location, photographer or other details about your image are known, please include that information as well.

As space allows, we will select a couple of images to reproduce in each issue. This is not a contest—just a place to share and enjoy. Slides will be returned within 6 to 14 weeks, and while we’ll treat your slide as carefully as our own, Stereo World and the NSA assume no responsibility for its safety.
Volume 46, Number 5 • March/April 2021

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Front Cover:
This Hémé tabletop stereoscope, France c. 1915, was in less than pristine condition prior to restoration. See our feature “Restoring Stereoscopic Antiques” by Pascal Martiné.

Back Cover:
David James Johnson, “Glassy Mountain, Flat Rock, North Carolina, USA.” This may seem like half (left) of a tranquil, bucolic stereoview but surprise; in the right image of this sequential pair, the cow has vanished or not yet arrived! Johnson published the view anyway, perhaps enjoying the shimmering, ghost cow effect and figuring his customers might also. See “A Late Victorian Local Stereographer” in the European Gems column by Denis Pellerin.
Still missing 46/3?

Through February and early March of 2021, most NSA members finally received their copy of the November/December 2020 issue. For those who didn’t, it now looks like we’ll have enough extra copies to send replacements. There’s just one thing—you’ve got to let us know! Contact us at strwld@teleport.com or at NSA, PO Box 86708, Portland OR 97286.

Editor’s View
Comments and Observations
by John Dennis

Explore Back Issues at stereoworld.org

Going back exactly 30 years to the March/April 1991 Stereo World issue (Vol. 18 No. 1) seemed like a good way to illustrate the sort of gems available on the NSA website. It was our third color issue, and it includes an exceptionally impressive variety and quality of articles. Among them is the cover feature “Les Theatres De Paris” by Paul Wing, covering tinted tissue views of theatrical offerings on the Paris stage. Produced by BK of Paris, few diorama views ever matched the quality or detail of these miniature stage scenes; stereographed, tinted and pierced with precision for combined front and backlighting over a hundred years ago.

“Learning to Love Lithos” by T. K. Treadwell provides carefully researched and overdue attention to lithographed stereo views over the years, with several truly rare examples. “Illuminations of a 3-D Alphabet” by scientific illustrator Carolyn Bartlett Gast combines medieval manuscript illumination with precise 3-D drawing. One astounding example on page 16 can be fused both horizontally and vertically. “The Atmosphere and the Earth in 3-D” by Dieter Lorenz of the German Aerospace Research Establishment fills eight pages with fascinating hyperstereos from the ground, air and space. “JIN Stereo Magic from Spain” by your editor covers one of the more unique stereo formats ever produced, thanks to a chance discovery among the boxes of exotic viewers in the View-Master plant collection.

To browse back issues from Vol. 1 (1974) through Vol. 44 (2019), go to stereoworld.org and click on “back issues” at the top of the home page. Clicking on any set of volumes will provide a choice of several years of Stereo World. Then just click on any cover of your choice. While some are of course more rewarding than others, it would be easy to spend days going through these issues (many long out of print), and it would not be time wasted!

Two Corrections

In our review of Macrophant3D on page 11 of Vol. 46 No. 4, we failed to mention the 3-D Friends special price. By using Promo code 25, you will get the book for $25 including shipping via USPS media mail (USA only). See macrophant3d.com/ or email barry@3ddigitalphoto.com.

In the review of History of Nudes in Stereo Daguerreotypes (Vol. 46 No. 3 page 30) the ordering information was incorrect. It is available from Carl Mautz Publishing at bit.ly/3dqkQGd. (See ad, page 31.)

If you have comments or questions for the editor concerning any stereo-related matter appearing (or missing) in the pages of Stereo World, please write to John Dennis, Stereo World Editorial Office, 5610 SE 71st Ave., Portland, OR 97206.

Explore the World of Stereo Images

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National Stereoscopic Association
PO Box 86708, Portland, OR 97286
The Only National Organization Devoted Exclusively To Stereo Photography, Stereoviews, and 3-D Imaging Techniques.
3D-Con 2021

The Board of Directors has unanimously voted to, once again, hold 3D-Con virtually this year due to the continued uncertainty surrounding the worldwide Covid-19 pandemic. I believe all of us are encouraged by the recent availability and distribution of vaccinations that have become available, but it is still too soon to congregate in large numbers and hold events like Workshops and 3-D Theater safely.

Steve Berezin has been selected to Chair 3D-Con and has assembled a convention team for this year’s event. The dates will be August 12 through August 15, 2021. Details and updates will be posted on 3d-con.com and stereoworld.org as they become available. We learned a great deal hosting an event of this magnitude with our inaugural virtual 3D-Con last year and we plan to improve the experience for 2021.

We are negotiating with a few properties to hold traditional in-person 3D-Cons for 2022 and 2023. If any of you would like to help plan or Chair a convention in your area please contact me at your convenience to discuss the possibilities. We need volunteers for 2024 and beyond. While that seems like a long way off, we have historically been in the planning stages several years prior to the event being held.

I hope everyone remains in good health. Please support our virtual event this year and I look forward to seeing all of you in person next year.

John C. Bueche
NSA President

Check Out the SSA

In March 2019, Craig Daniels somehow talked me into joining the Feline Blue Folio, one of the Stereoscopic Society of America groups that are part of the NSA. Luddite that I am, this archaic idea of mailing stereoviews appealed to me. I sent in a photo, on a homemade mount. About five months later I got a large packet in the mail. It was the current Feline Blue Folio. I opened it, and inside was a number of very well made stereo cards, including mine in its protective envelope. The envelope was covered in messages from other members of the folio. All were very positive, some had some constructive advice. I then wrote my comments on the envelopes of all the other photos, and replaced mine with a new photo, and sent it to the next person on the list.

So now every few months, I get a packet in the mail and I get to see some of the most creative stereo cards and get to add my little bit of commentary to them, and see what kind of commentary others have written about my entry. Sadly, it seems the group is starting to dwindle. There is little reason for this. StereoPhoto Maker is the easiest way to make a stereo card these days. My favorite stereo camera these days is my iPhone. With a little care and attention to the stereo base, the iPhone is a damn good camera. Walgreens down the street has a very good photo kiosk, 39 cents for a 4x6 print, which is easy to paste on to a 3½ x7 mount. Or a 5x7, for $3.50, and all one has to do is trim it to 3½ x5, and paste that to a mount. I use Golden Age Comic Book backers for mounts. They are 10½ x7, the perfect size for making three stereo cards. It is thin enough to cut easily, and stiff enough to have some robustness to it, and it is acid free board.

My photos will never win any awards, but it is very gratifying to have them seen by others and get feedback on them. It is also very interesting to see what others are doing. Some submit cards that are very simply made. Some submit cards on a mount that is very substantial, and often the back of the card is as interesting as the front. So get off your duff, and join the SSA, see stereoworld.org/ssa/ or below for contacts.

- General Secretary: Donna Matthews donnamat@aol.com
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– Ralph Reiley 🌟
Why Restore?
Guiding Principles

A lover of antiques also loves the stories they come with and the traces those stories have left—something which we call “patina”. We must thus ask the question of why one would even consider restoration, a process which will surely alter an object.

Water stains, cracks, even the loss of parts—are these flaws worthy of restoration? Don’t we have to preserve the artifact as it is, with its history intact? This is certainly a valid arena for debate. For me personally, there are some very good arguments for restoration. However, one should always err on the side of caution. These are applicable to antiques in general, but are particularly relevant when considering stereoscopic antiques.

Firstly, it is usually a goal of mine to restore the functionality of stereoscopes and stereo cameras to a point where they are still usable as intended. This also includes conservation, ensuring that functionality will not be lost in the coming decades.

Secondly, things like dirt or water damage might prevent us from understanding how an object may have looked originally, or how comfortable it may have been to use. In short, how the object would have appeared to its contemporaries. This, in my opinion, is also part of historical research on a particular object.

Inevitably, antiques are only ever available in limited quantities. Their current owners might not always consider them to be worth preserving, although the internet now makes it easy to get background information and estimate the demand for objects. Nevertheless, a stereoscope or stereo camera that is in poor condition is less likely to find a buyer, and might therefore permanently disappear. In addition to a measurable increase in value, a restoration is often the last resort in saving an object that has already survived destruction for a century or more.

I have already mentioned that the patina of an antique is a considerable attraction, and it is desirable in any case that the age of an antique remains obvious to the observer. When I restore a stereoscope or stereo camera, I am not trying to give the impression that it is a modern product. It is also not my intent to improve its performance from how it was originally constructed, even if later models from the same manufacturer did exactly that.

When considering restoration, I always ask myself one very simple question. What would this stereoscope look like today if it had never disappeared from its owner’s living room, but had been cherished and cared for continuously for over 100 years?

Disassembly and Reassembly

Looking at an old stereoscope, it is easy to see that the moving parts are worn, and that freely accessible surfaces show abrasion. This is usually the result of normal use and superficial cleaning. Stubborn dirt is mainly found in corners and cracks, or behind levers, cranks, knobs, or the oculars. Normal use mainly leaves behind dust and bodily fluids, such as sweat, which has hardened from decades of storage in damp and poorly ventilated rooms.

Whether you want to perform a relatively superficial cleaning or a full restoration, it is important to disassemble the stereoscope as much as possible! There are four main reasons for this:

First, there are some areas that you simply cannot reach at all, e.g., the inside of the openings through which the eyepieces are moved when focusing. But it is precisely in these places that further abrasion tends to happen when the stereoscope is in use.

Second, different materials require different cleaning techniques. Cleaning wood with liquids damages metal parts and, conversely, polishing metal makes neighboring shel-
lacked wood parts look dull and scratched. Without completely disassembling an object, there is no way of completely cleaning the areas of transition from one material to the other.

Third, cleaning sometimes requires the application of some mechanical force to the object, not to mention clamping parts that need to be re-glued, using a hammer to fit in missing parts, or replacing lost nails. If everything is still assembled, you may loosen, bend, or break intact connections in doing so.

Finally, this is also about the philosophy of restoration. We want to work conservatively throughout the entire process and, if possible, even reverse processes of decay. However, if you were to clean an object without dismantling it first, you may actually accelerate the process of decay. This is because wear will inevitably continue on the freely accessible areas by your cleaning activity, while dirt in cracks and crevices has not ever been reached. This might lead to a situation where you have to apply new paint because you rubbed the worn old paint off the already worn wooden surface even though you really only wanted to get to the back of a Bakelite knob.

**Tools**

A small standard toolbox is ideal for dismantling, since it usually contains screwdrivers in various sizes as well as flat-nose pliers and side cutters.

If you want to fix, grip or pull something with the flat-nose pliers, remember to use a piece of fabric or cork to prevent the pliers from scratching your surface. You can use the side cutter to loosen (not to cut off!) small nails. This is especially useful for removing things like manufacturer’s labels.

The most important tool, however, is the screwdriver. Stereoscopic antiques typically utilize slotted screws exclusively (not Phillips head or Allen head). For the smaller screws, you may have to resort to watchmaker’s tool sets, but standard screwdrivers can usually be used successfully here. However, especially the larger screws used in antique

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Water stains on the top of a French Hamdé tabletop stereoscope, which has lost much of its color.

Varnish has brought back the color in the wood of this restored Hamdé, with mirror extended at left to illuminate its large diffuser for glass transparencies.

Lenses of a Scovill stereo camera prior to cleaning and restoration.

The restored Scovill stereo camera.
stereoscopes tend to have much narrower slots than modern screws of the same size. So, a modern screwdriver of the proper blade width won’t fit in the slot, while a watchmaker’s screwdriver which is thin enough to go in the screw slot won’t be wide enough to apply the mechanical force necessary to turn the screw. My recommendation: Buy a large screwdriver with a comfortable handle and a blade about 4mm (i.e. 1/8 in) wide and grind the blade down to be much thinner—as flat as a butter knife.

Many screws will still refuse to loosen straight away. If the shanks are metal, carefully spray the head with some penetrating oil, e.g. spray-on WD-40, and leave it to do its job. Sometimes you will have to do this multiple times before unscrewing is possible. If the screw head is recessed deep into the wood, it helps to carefully scrape the head free with a knife. If the screws are dirty, you can scrape out the slot in the screw with the corner of the screwdriver head. It might also help to loosen the screw by trying to turn it back and forth a little at first. If it gets difficult and you have to use more force, hold the neck of the screwdriver to keep it from slipping and scratching the surface.

**Procedure**

I have come across different makes and models of stereoscopic antiques time and again over the past few years and it is impossible to give a complete explanation. Still, there are a few things in common. For example, eyepieces or lenses can usually be unscrewed and disassembled by hand. Beware of too much pressure! If you grip them too tightly, you may break or bend the eyepiece mounts or the threaded rings! It’s best to place your palm flat against the entire ring and then twist. If your hand keeps slipping, try putting on rubber gloves.

Levers that do not have a screw can sometimes be amazingly easy to pull out. Often, however, nipped nails also serve as pins for holding them in place. If this is the case, these levers are generally impossible to detach.

If prismatic lenses or glass panes are held in place with pieces of wood glued inside the device, see if you can gently break off these pieces of wood with your bare hands. You can also use a knife or a screwdriver as a lever. Make sure that any damage you may cause will not be visible from the outside and consider whether it is worth dismantling this part of your object for the restoration.

Depending on the order in which you do things, you won’t have to dismantle everything at once. For example, it is advisable to keep eyepieces assembled when you are not working on them so that you don’t have too many small parts out at a time. A type case or a magnetic tray is ideal for storing the smallest parts. The mechanisms inside larger table stereoscopes can usually be taken out of their casings and cleaned without further dismantling necessary.

When reassembling the device after cleaning, you will notice that screws or nails may no longer grip because the hole has gotten too large. To fix this, spread some wood glue on the tip of a toothpick, insert it into the hole in the wood, and then break it off. To prevent the screw from changing its position, you can use a small nail to prepare a hole in the screw’s original position by hand. Expect having to replace rusty screws and not being able to reuse small nails. It’s important to check your local hardware store for suitable replacements before dismantling.

**Cleaning and Finishing**

The majority of my restoration process consists of very thorough cleaning.

**Lacquered Surfaces With Glossy Finish and Bakelite**

I use the same cleaning fluid for shellac-polished wood, lacquered metal with a glossy finish, and Bakelite parts. There used to be a product from the German company Clou for polishing shellac—a water-based suspension that contained a little soap and pumice powder as an abrasive. The liquid soap was ideal for loosen-
ing encrusted dirt, and the abrasives smoothed the surface without leaving any visible marks. The fluid was applied with a ball of cloth and, after drying, polished with a clean cloth until it was shiny. Unfortunately, this product was discontinued.

Two years ago, I finally came across an alternative that is easy to make at home. There are many different polishing pastes for car paint that contain abrasives. Look for a water-based product and above all, make sure it does not contain any wax or silicone. Dilute the product with water until it has reached the consistency of milk.

The application is then exactly as described above—there will probably be some light clouding on the surface after the product has dried (likely due to the abrasive), but it can easily be wiped off with a damp cloth. Afterwards, you should dry the surface quickly with a fresh, clean cloth and polish it until it is shiny.

A final treatment is optional after cleaning. Bakelite gets a nice, even shine if you treat it with colorless wax. Usually there are specific products for the care of antique wooden furniture. After rubbing the wax in, let it dry completely and polish it briefly, and thoroughly, with a dry cloth until it shines.

The same treatment is also useful for wood with a shellac surface; isolated scratches or blunt spots can be concealed well this way. However, be careful to apply very little wax and avoid unnecessary contact with the surface for several days after polishing. The wax takes a long time to dry completely because it cannot be absorbed into the wood. Don’t worry about overdoing it. You can completely remove excess wax with a soft cloth. I strongly advise against treatment with standard liquid oily furniture polish! The oil penetrates even the smallest cracks in the paint and pulls into the wood underneath. This results in dark spots, that will be irreversible or at least visible for a long time. Caution: Repairs to wood, metal and Bakelite parts must be made before the final treatment of the surface!

**Waxed Wood**

I generally try to change the original surface as little as possible. An exception is waxed wood, as there are water stains under the wax layer and new wax that is applied to the surface combines seamlessly with existing wax residues (in contrast to lacquer).

If the dirt is just superficial, I resort to the same method I explained in the previous section. In the case of water stains, heavily bleached wood, or partial loss of the wax layer, I remove the old wax layer or loosen it. To do this, I rub the wood thoroughly with a bale of the finest steel wool (grade 0000), which I regularly soak in mineral spirits*. This process washes off the old wax and at the same time smooths the surface. The result always looks terrifying. Surfaces appear spotty and extremely clouded, like a badly wiped school blackboard.

Do not try to repeat the process until the wood looks even, as this would mean that you’ve sanded off the entire top layer of the wood. This is neither desired nor necessary, and would only distort the original color. You can always check how the surface will look later as long as the mineral spirits* have not evaporated and the wood is still damp.

From here there are several options:

- **a)** Deep scratches, breakouts, or other areas where the original surface has been completely removed and which therefore emerged brightly before removing the wax layer can be re-colored with wood stain (water-based without any wax components) in the appropriate color.
- **b)** If the wood in general, or in larger areas, looked very pale and colorless, you can rub the entire wood with linseed oil varnish. Let the varnish take effect briefly, rub off any excess liquid with a cloth and let it dry sufficiently!
c) If, by and large, the wood looked even and had a nice color before removing the layer of wax, skip both of the above steps and apply a new layer of wax straightaway. Use a colorless wax made for wooden furniture. There are often special products for antiques. Distribute the wax with a piece of cloth. Too much wax won’t harm your surface, but it will cause you to have to polish more. For starters, the surface should feel like your hands after putting on hand cream. Let the wax dry long enough and rub it off briefly and vigorously, creating a satin gloss. Rubbing for too long will heat up the wax, causing you to merely smear it around. If in doubt, let it dry again. Cracks and ridges are easily polished with a brush. If at the end you still see rubbing patterns, you have probably used too little wax, or the wood has soaked up too much of it. In this case, just repeat the process.

Caution: repairs to the wood must be made before oil and wax are applied!

Metal
Cleaning metal parts that have not been painted or tempered is generally very easy, but might require patience and focus. For stereoscopic antiques, you’ll mostly encounter brass, and possibly nickel-plated brass. Rub off any dirt or stains with the finest steel wool (grade 0000) without applying too much pressure. Not all stains can be completely removed, and you always have to consider when to stop. There are limits to cleaning, especially with nickel-plated brass.

Tempered metal can sometimes be cleaned at least a little with penetrating oil and a cloth. But be very careful: even a little too much pressure will cause the color to come off.

The cleaning of the mechanical work of table stereo viewers is mostly done by simply removing dust, dried-on oil, or graphite. I use a toothbrush on which I put penetrating oil, for example spray-on WD-40. I rub larger areas clean with an oil-soaked cloth. Oil the moving parts, but otherwise rub off all of the oil afterwards. Do not use sandpaper or steel wool. Unfortunately, I speak from experience when I say that these leave permanent traces.

Leather
I use Vaseline or modern colored shoe polish to care for leather. I make sure not to use any products with grease, as it tends to react with the leather in the long term, making it brittle. Further information can be found within the book restoration community if needed.

Repairing and Replacing
In comparison to possible serious damage, everything that has been said so far is relatively manageable. If a stereoscope or stereo camera is not only heavily soiled, but has parts that are broken off, permanently stuck together or have even disappeared completely, you must always decide on a case-by-case basis. Still, there are a few common methods that I would like to address briefly.

Gluing
Bone glue was most frequently used in antiques, and we cannot produce it today without great effort. That is why I myself use modern glue for my restorations. I make sure, however, that it doesn’t contain any solvents, because I don’t know to what extent those solvents might attack the materials.

Usually wood glue takes some time to dry, making it essential to hold the parts together with clamps. Don’t forget to put wood or cardboard underneath the clamps to avoid scratching the surface. I also use white bookbinding glue for leather or textile. Bookbinding glue retains some elasticity and dries clear.

White glue that spills out from cracks when gluing things can be easily scraped off with a fingernail once it has hardened a bit. Any leftovers can then be wiped off with a damp paper towel. Superglue is useful for broken Bakelite parts and
two-part resin epoxy is suitable for metal parts that are subject to stress.

**Bending**

Bent metal parts are very common. Mostly they are not cast metal parts, but rather wires, stamped sheet metal or the like. If you are careful and think carefully about where to start, most parts can easily be bent back into shape. I mostly use flat-nose pliers for this. Don’t forget to put a piece of fabric between the pliers and the metal part! I usually only use one pair of pliers while I hold the part with my bare hand. I like to think that that gives me a better sense of how much strain the metal is under when bending.

**Colored Wax Putty**

It is not uncommon for antiques to be infested with household pests, e.g. woodworm. After dismantling, it makes sense to treat the infested parts either with a pesticide, or put in the oven. The tell-tale holes in the wood can usually be hidden well with colored wax. Colored wax is also good for filling in small cracks or imperfections, both in wood and in Bakelite.

**Felt**

Even after a number of restored stereoscopes, you can still discover new things! Many stereoscopes have two metal rings in their wooden casings, through which the tubes of the eyepieces move when we adjust the focus. Felt or velvet was always used inside these rings. However, one can often no longer find the slightest trace of it. If you look closely, you might at least see the glue residue. I definitely recommend putting a thin layer of felt back on. This prevents the metal tubes from being scratched and, above all, stabilizes the guide when setting the focus, which often remains a bit wobbly without felt.

**Spare Parts**

Although I said at the outset that restoration is sometimes the last chance to save an antique from destruction, there are also those that are too damaged to save. Keep an eye out for these objects. Sometimes they can serve as a source of replacement parts. In particular, the eyepiece frames and Bakelite parts were made by large manufacturers, and are the same for most stereoscopes. The same thing is true for screws.

(Continued on page 20)
100 Years of Anaglyph 3-D Movies

Recently it was mentioned online that 3-D movies are never shown in anaglyph. Perhaps never was not the correct word. Over the years, and even after polarized projection became the almost universal norm, anaglyphic 3-D (despite its acknowledged limitations), offered some tempting advantages. When available on a single strip, no special projection equipment or screen was required, movies could never go out of synch even after breaks or bad splices, and it made 16mm and 8mm prints of previous dual strip 3-D films possible. Let us know of any other films commercially released in anaglyphic format at any time, for addition to the list below.

• Niagara Falls (1914)
• Edwin S. Porter tests (1915) (lost)
• Faust (1922)
• Plastigrams (1922-24) (lost)
• Movies of the Future (Plasticons) (1922)

New Views

Current Information on Stereo Today

by David Starkman, Lawrence Kaufman & John Dennis

• In the Trees: Washington D.C. (1922)
• The Power of Love (1922) (lost)
• Selected Views of Yosemite Valley (1922) (lost 3-D)
• Movies of the Future (1923) (only segments survive)
• Stereoscopiks (1924) (lost)
• Heartbound (1925)
• Luna-cy (1925) (lost)
• Ouch! (1925) (lost)
• Zowie (1925) (lost)
• A Runaway Taxi (1925) (lost)
• The Ship of Souls (1925)
• A Ziegfeld Midnight Frolic (1929)
• L’Arrivee d’un Train en gare de La Ciotat (1923)
• Audioscopiks (1923)
• The New Audioscopiks (1938)
• Day Off in Moscow (1940)
• Third Dimension Murder (1941)
• A Day in the Country (1953) (aka Stereo-Laffs, 1941)
• Carmenesque (1953) (lost 3-D)
• College Capers (1953)
• Bandit Island (1953) (lost 3-D) (pol. & anaglyph releases)

King Dinosaur

Producer Al Zimbalist was a big proponent of 3-D with Three Dimension Pictures having produced Robot Monster (1953) and Cat Women of the Moon (1954). So it might not be surprising that the 2-D film King Dinosaur (1955) features geologist Nora Pierce (Patti Gallagher) using her 35mm Revere stereo camera to photograph the “monsters” on the planet Nova. Today this 63 minute movie is pretty funny. You can watch it on Amazon Prime or on YouTube, where the camera very briefly appears at 39:19 minutes into the film. See tinyurl.com/3may77w4. You can find other 3-D related television and movie sightings at: tinyurl.com/3n6s5tfj.
3-D Out of This World

Thanks to NASA’s Mars 2020 Mission Perseverance Rover we can once again enjoy 3-D images from Mars. This can’t be a bad thing for 3-D and its future. A few people are matching images from the NASA website and posting the 3-D results. You can check out the website at mars.nasa.gov/mars2020/ for raw images. As of this writing, NASA has yet to release finished anaglyphs or organized pairs. NSA member Gordon Au has assembled some stereos from overlapping sections of Perseverance panoramas at worldofdepth.com/daily/210301.html. More stereo subjects should present themselves after the rover has moved beyond its fairly flat landing area, now named for Arizona’s Canyon de Chelly (“Tséyi’” in Navajo) within Jezero Crater.

Hindenburg Reels

The Dutch publisher 3D Reelz has produced a set of two reels featuring 14 historic images of the famous airship Hindenburg LZ-129. The huge zeppelin, the largest ever built, comes alive before your eyes. The rare images, carefully collected over many years were all converted to 3-D. You are looking at the airship flying past in 3-D and you’re inside the LZ-129 as if you were there in reel one. You are reliving the final last seconds of the terrible disaster on May 6, 1937 in reel two. Viewing these images in 3-D is an emotional, historical adventure. The two stereo-scopic reels are accompanied by an informative leaflet. Also available is a 3-D gift set with a viewer. See 3dworldshop.com at tinyurl.com/yfmwzj73. (For 17 native stereos of the Hindenburg’s predecessor, see “Inside the Graf Zeppelin” in Stereo World Vol. 23 No. 5.)

Masks With Flair

When you leave your home, you should be wearing a mask, but not any mask, a mask that tells people who you are. Redbubble is offering just the mask for you. They have a mask with the logo from The Mask, the 3-D cult classic. They have different sizes and styles, single layer, triple layer, small and kids. Originally they were also offering magnets and stickers, but these are sold out. Mask designs include themes like 3-D k9, 3-D glasses, 3-D movie, gorilla face, etc. on. See tinyurl.com/nt8npkpey.

3-D Review

The online 3-D Review.com magazine is moving to a new server. If you have their site bookmarked, update your bookmarks to go to the new location. Their readers have made millions of views over the years since the Stereo 3-D website started in the late 1990s and 3-D Review started in 2003. You can send 3-D product reviews to share with the worldwide 3-D community. You can also find the 3-D Review Facebook page. Archived content from the old provider’s server space should be on the new server, provided by Dan Shelley. See dddesign.com/3dreview/index.htm.

This column depends on readers for information. (We don’t know everything!) Please send information or questions to David Starkman, NewViews Editor, 4049 Coogan Circle, Culver City, CA 90232. Email: reel3d@aol.com.
Big Trouble
Down Mexico Way

by Ralph Reiley

In 1964, I was eight years old. My grandpa Geltz astounded me one day with a story about his time serving in the cavalry during World War One. My dad, and all my friends’ dads, had been in this huge thing called World War Two, a name for something I did not fully comprehend in 1964. World War One was a revelation to me. Wars had numbers! Who knew? Grandpa Geltz’s army stories intrigued me, and I have been intrigued with the 1914-1918 era ever since.

In 1916, Charles G. Geltz volunteered to serve in the cavalry. The war in Europe had been raging for two years. He believed that the USA would soon be involved. He thought when the U.S. did enter the war, a draft would be imposed, and the army would choose where one would serve, so he chose the cavalry due to his love for riding horses. He finished the semester at Carnegie Tech and then he was sent to Fort Riley in Kansas, home base of the 13th Cavalry. In December 1917, he was sent to the Mexican Border Patrol, and in September 1919, his enlistment was up.

While my grandfather missed the Mexican Incursion of 1916, he believed that the border patrol was an important job. Both the Japanese and German governments had spies and agents in Mexico, and their schemes were not in the best interest of the USA. Japan was looking to add territory to its empire. Germany was looking for a way to prevent U.S. made munitions from reaching England and France. A war between Mexico and the USA would suit both nation’s purposes very well. While these schemes are laughable today, they were believed to be serious threats at the time.

Revolution had been raging in Mexico since 1910. The Mexican government was corrupt, foreign investors, and a few Mexican investors, were looting the country. 90% of Mexicans owned no property and lived in a state of poverty hardly different from slavery. For the people of Mexico, the situation was intolerable. Revolutionary factions developed in every state of Mexico. The northern state of Chihuahua, just across the Rio Grande from Texas, was the home of José Doroteo Arango Arambula, 1878-1923, who went by the name of Francisco Villa, later known as Pancho Villa.

Villa was an uneducated man, but ambitious and charismatic. Villa joined the revolution in 1910, by 1913 he was a general. In 1913 General Villa was made the provisional governor of the state of Chihuahua. The Mexican revolution was heavily influenced by the American press, both newspapers and newsreel companies. At times it was hard to tell truth from fiction in reports of the revolution in Mexico. John Reed, who later covered the revolution in Russia, wrote many articles about Villa, and helped create his image as a freedom fighter. His articles were collected in a book titled Insurgent Mexico. In 1914, Villa and the Mutual Film Company reached an agreement. Mutual got exclusive rights to filming Villa and his men, and Villa was given a share of the proceeds. Raoul Walsh was the director for Mutual’s version of the Mexican Revolution. The newsreel films were not what Mutual wanted. Walsh ended up making two films about the life of Villa using film shot on location in Mexico and staged scenes in the USA. This agreement did not work out well for Mutual, as the cameramen could not get the actual battle
scenes on camera due to the inability of cameramen to survive out in the open while an actual battle was raging. Walsh would go on to direct films such as *The Thief of Bagdad, The Big Trail, They Died with Their Boots on*, and *Objective Burma*.

As the revolution in Mexico became a civil war, the revolutionary armies continued to fight each new government that took control, as each new government proved to be just as corrupt as the one it replaced. After a time, the revolutionary factions also fought each other, leaving Mexico in a state of total chaos. As Villa’s prestige was on the rise, his army grew to 50,000 men and he commandeered machine guns, artillery, horses and four trains from the Mexican army. Villa had a caboose fitted out as his mobile headquarters. One train was converted into a mobile hospital. American reporters traveled in their own boxcar in one of Villa’s trains, as they reported every move he made. Robbing the rich landowners in Chihuahua and selling their crops provided Villa with money to buy ammunition, supplies, medicine, and to pay his men. Each new victory saw his army grow larger as well as his legend of invincibility on the battlefield. He had direct contact with officials with the U.S. government and Army. The U.S. encouraged him to buy supplies, weapons, and ammunition in Texas. Villa believed he had the full support of the USA.

In 1910, when the Mexican revolution began, the U.S. army was small. Most soldiers on active duty were stationed overseas in the areas recently acquired in the war with Spain. The army was there to keep the peace and to put down local rebellions. For some reason, these people did not care for the United States occupying their country any more than they cared for Spain occupying their country. As the revolution in Mexico grew, so did the need for U.S. troops to protect the border with Mexico. The U.S. army began to grow, as troops were stationed on the border in California, Arizona, New Mexico, and Texas to ensure that the revolution stayed in Mexico, and to keep a force ready to inter-

Sergeant Charles G. Geltz, 13th Cavalry, 1917, sitting on a caisson. About 39 years after this photo was taken, Sergeant Geltz would become my grandfather. I can tell from his proximity to the cook tent behind him, that he had his priorities in order. His stories of his time in the cavalry were mesmerizing to me when I was young. He taught me the proper way to hold a saber when charging on a horse. The way they do it in movies is all wrong. He taught me the bayonet drill. He also taught me more relevant things about how to appreciate nature, and how to live one’s life to make the world a better place.

Keystone No. 17362, “Loophole Protected from Shrapnel Fire-Man Deep Trenches as Used by Our Soldiers in Mexico.” Pershing and his men were always on the move, hunting for Villa and his men. The U.S. army dug no trenches in Mexico. By the look of the wood frame buildings in the background, this was taken in Texas, where officers had the soldiers dig trenches to occupy their time. (Photo courtesy of Rob Boyd)
vene if needed. Some battles took place so close to the border that stay bullets did wound and kill Americans, as they were out watching the events from roof tops, like it was a sporting event. There were some border incidents. Revolutionaries, or bandits, depending on one's point of view, would occasionally cross the border to steal horses and rob stores for weapons, ammunition, and supplies. For the most part, the only Mexican revolutionaries who crossed the border came with money to buy medical supplies, food, weapons, and ammunition. Business was exceptionally good.

In January of 1914, Poncho Villa was at the height of his power and popularity. By September of 1914, things began to change for the worse for Poncho Villa and his army. Carranza took control of the government in August 1914. Villa hoped that Carranza would promote him to major general and when this did not happen, he disavowed Carranza in September 1914.

Carranza sent one of his generals, Alvaro Obregón, and an army to deal with Villa and his army, the División
del Norte. Obregón set up defensive positions, complete with barbed wire and machine guns with overlapping fields of fire. Poncho Villa’s army attacked and was defeated several times. Each loss was a blow to Villa’s reputation of invincibility. By the end of 1915, the combined losses from casualties and desertions reduced Villa’s División del Norte to military insignificance. After Villa’s defeat in 1915, President Wilson reluctantly recognized Carranza as the legal president of Mexico and opened diplomatic relations with Carranza’s government. This enraged Villa, as he saw it as a betrayal by the United States. Villa was convinced that Carranza and Wilson were working on a deal to sell Chihuahua to the USA. In January 1916, Villa ordered his men to murder any Americans they came across in Mexico.

In 1910, men flocked to ride with Villa. In 1916, he had a few loyal officers, but most of his men were there under duress. They were given the choice of joining up or execution. If they ran and hid, their families would be murdered. The one-time freedom fighter had become a tyrannical outlaw, much like Eli Wallach’s character Calvera, in *The Magnificent Seven*. By April 1916, Villa’s army had dwindled to about 1500 men, and he was low on supplies, weapons, and ammunition. He had an uneasy and unofficial truce with the army of Carranza. If Villa and his men did not cause too much trouble, the Mexican army did not do too much to track them down.

On March 9, 1916, Villa and about 500 of his men crossed the border and attacked the town of Columbus, New Mexico. Columbus seemed to be an unlikely place for a raid. It was a small town, founded in 1891. In 1912, Columbus became the home to Camp Furlong, where elements of the 13th Cavalry were stationed on border patrol duty. Many reasons for the raid have been put forth, none of them ever verified by Poncho Villa. The U.S. 13th Cavalry was stationed there, so the horses and weapons in the arsenal may have been the target. Many were convinced that German spies were to blame, as Mexico was chock full of German spies and agents. A store in Columbus was said to have taken Villa’s money for weapons and did not deliver them. Others proposed the idea that if Villa attacked the USA, then the Wilson would be forced to respond. If the USA invaded, then Carranza would have to respond. If Carranza resisted the U.S. army, he may start a war. If he did nothing, then he would look weak, and lose support of the Mexican people, and either way, Villa’s prestige would rise. That is a complex and long game strategic plan, which may or may not have occurred to Poncho Villa, who had a daily struggle just to keep his men fed. Before President Wilson and the USA had betrayed him, Villa considered Col. Herbert Slocum, the commander of the 13th Cavalry, to be a good friend. Col. Slocum’s wealthy aunt had left her fortune to him in her will. Slocum’s wife may have been a target for kidnapping, as Villa had been known to ransom wealthy Mexicans back to their families. Whatever the reason for the attack, it was believed that Villa thought that as few as 50 troopers of the 13th Cavalry were stationed in town. On the night of the attack, 300 troopers of the 13th Cavalry were in the barracks. Col. Slocum had been given many intelligence reports about Villa, all were conflicting. Reports stated that Villa and his men were moving to the east. Other reports stated Villa was headed west, or south. A few reports did state that Villa was preparing to head north, cross the border and attack the town of Columbus. Col. Slocum had some troopers out, patrolling the border, and had the usual number of guards standing watch on the night of March 9, 1916. Villa and his men began the attack at 4:00 am. One group swept through the north part...
of town, robbed stores, set buildings on fire, and murdered ten men and women. Another group swept the south side of the town, where the 13th Cavalry was stationed. Eight troopers were killed in the short battle. Machine guns were set up, and soon Villa and his men were on the run. A small detachment of cavalry chased the retreating Villistas across the border. They broke off pursuit when their supply of water and ammunition gave out. Villa and his men made off with 80 horses, 30 mules, and 300 rifles and shotguns. Villa lost about 100 men killed, and an unknown number of wounded.

The aftereffects of the raid were immediate. The U.S. government and army went into a flurry of activity. Col. Slocum declared martial law in Columbus. It was noted that no houses, shops, or businesses belonging to residents of Mexican descent were damaged or robbed. This led to immediate reprisals by the American residents on their Mexican neighbors. Reprisals included lynchings, shootings, beatings, and destruction of property. Others in Columbus were traumatized seeing their husbands, fathers, and sons brutally murdered in front of them, some never recovered from the shock. When this story hit the newspapers, the entire country was up in arms demanding action.

In the 1880s an agreement was reached between the USA and Mexico. If the armed forces of either country were pursuing bandits or Indians, the pursuit could be extended across the border without prior written consent. This agreement was used by the U.S. army to enter Mexico to track down Poncho Villa and his men and kill or capture them. General Pershing was put in command of 4,800 men, divided into three brigades, two cavalry and one infantry. Mexico reluctantly accepted that General Pershing and his men would operate in Mexican territory but did not allow use of the Mexican railroads. On March 16th, 1916, two columns crossed the border. Pershing led a group of 2,200 men departing from Columbus, and a second column crossed the border at Culberson's Ranch, about 60 miles west of Columbus.

For the next ten months, the U.S. army pursued Poncho Villa and his men. Villa divided his small force and sent them in various directions, while he and a few of his most dedicated followers went their own way. During a clash with the Mexican Army, Villa was shot in the leg, probably by one of his own men, making his escape even more difficult. Pershing and his men did track down a few of Villa's men and killed or captured them. Pershing's men also clashed with forces of the Mexican Army, and a war with Mexico was narrowly avoided. The general and his officers were surprised when they found that the people of Chihuahua were not happy to see the U.S. army in their country, even those who were opposed to Villa. Local guides were found to be unreliable. Local farmers had to be coerced into selling supplies. The U.S. army met constant resistance in all aspects of the operation from civilians, local civil authorities, and the Mexican army.

Villa just narrowly escaped capture several times while recovering from his leg wound. When a paid informant identified a house where Villa was hiding, the house would be searched. In all cases Villa was never found. The U.S. soldiers were told that he was never there, or that he had just left. Sometimes Villa had just left, after being tipped off the soldiers were closing in, or sometimes he was just a few doors away, and the informant had provided the wrong address. Most often Poncho Villa was never in the town where the paid informants said he was. After months of failed attempts to capture Villa or engage with Villa's men, plus difficulty with supplying
the men, and increasing number of clashes with the Mexican army, Pershing asked to escalate the operation and requested reinforcements. He wanted a full-scale military occupation, or even to annex the state of Chihuahua. More pragmatic and cooler heads in Washington prevailed. Wilson finally gave orders for the Mexican Incursion to end. Diplomatic relations with Germany were deteriorating rapidly, and the imminent war with Germany was the larger issue. In January of 1917, all U.S. forces were withdrawn from Mexican territory. Wilson mobilized the National Guard, and 100,000 men were soon on border patrol from California to Texas. This served a dual purpose. One was to protect the border, as bandits were still crossing to steal horses and supplies. The other was to begin gearing up for a full-scale mobilization for a war in Europe, when millions of men would be needed.

During the Mexican Incursion, the U.S. army found that a 400-mile supply line in the desert was not possible to maintain with horse drawn wagons. Trucks were more efficient than horses, and the U.S. army began to mechanize. The U.S. army air corps was also fully engaged, all eight aircraft were in use. This was
the first time the air corps was operating in the field.

Many lessons were painfully learned, and some valuable reconnaissance missions were performed. All eight aircraft were lost during the campaign, more had been ordered but none were delivered before the end of the expedition. While the Mexican Incursion did not capture Villa, his men were scattered, and Villa was no longer a threat to the USA. The experience of mobilizing the army, the use of motor vehicles for supply, and the use of aerial reconnaissance gave the U.S. army a few practical lessons in modern war.

In 1916, Keystone’s door to door salesmen were out plying their trade, as Keystone’s business was to sell photos. Taking photos was never Keystone’s primary focus, but when there was a newsworthy event, Keystone would engage photographers to document the event. Within a few weeks, salesmen could offer photos while the event was still a hot news
story. A photographer was sent to the border to document the incursion into Mexico. I have searched through the Keystone-Mast online collection. Many photos in that collection include the date the photo was taken, the place, and the name of the photographer. The Mexican Incursion photos are among those that do not list either the date or the photographer. Whoever took the photos did not cross the border into Mexico. The photographer seems to have been on good terms with the army, as he was able to get the soldiers to pose for some “action” photos.

The Keystone photos are all taken on the U.S. side of the border between Columbus, New Mexico, El Paso, Texas, and Brownsville, Texas on the Gulf coast. The photos all carry a 1916 date on them, and they are blank on the back, some with a stamped sequence number. In mid-1916, Keystone began selling a group of Mexican Incursion photos, with catalog numbers ranging from 17360 to possibly 17384. Known photos in this group run from 17361 to 17382. Photos 17360, 17378, 17283, and 17384 are not known to exist. Keystone photo 17385 begins a new sequence documenting American Preparedness parades, which were extremely popular in 1916, but not particularly effective in preparing the U.S. Army for the European war. In the 1920s, some of the Mexican Incursion photos were included in Keystone history sets and the usual descriptive text was added on the back to put them in context.

After the Mexican Incursion, General Pershing was given command of the American Expeditionary Force in France. Much has been written about General Pershing and his ability as a general, which is far beyond the scope of this article. He died on July 15, 1948. The Mexican revolution officially ended in 1920. Poncho Villa was given an amnesty, a large house, and land to farm. Surrounding Villa’s new estate were smaller estates, given to his most loyal supporters. Villa, well protected in a very prosperous area, began to assemble a new army of followers. As the 1923 elections grew close in Mexico, Poncho Villa began making speeches and talked about running for office. On July 20, 1923, he was assassinated when his car was blocked on a busy street and seven marksmen riddled him with rifle fire.

One of Villa’s bodyguards managed to kill one of the assassins. The other six escaped but were soon apprehended. Two were charged and spent a few months in prison. The others were inducted into the Mexican army. My grandfather arrived on the border patrol in December 1917. The border patrol continued into 1919. Shortly after his enlistment was up, he became a forest ranger. Grandpa Geltz was called up again during World War Two. At the time veteran cavalymen were given two options; the tank corps or the quartermaster corps. My grandfather chose the quartermaster corps. After WW2, he went back to forestry, and later taught forestry, or silviculture as he preferred to call it, at the University of Florida.

In 2007 I was kindly given digital copies of the Keystone Mexican Incursion photos by Bob Boyd. I put these Mexican Incursion photos in a folder for later use. Since 2007, I have managed to add a few of them to my collection of Keystone war views. In 2010, my uncle, Charles G. Geltz, Jr., died after living a long and full life. At the funeral, my aunt gave me a leather-bound photo album belonging to Grandpa Geltz. It is full of photos he took during his time in the cavalry on the border patrol. In March 2020, I was looking through this photo album, and to my surprise I found one photo of my grandpa. As it was his photo album, he was otherwise behind the camera.
and not in front. For some reason, having that photo was the spark I needed to complete this article, one that has been in the back of my mind since 2007. I dedicate this article to my Grandpa, Charles Gotlieb Geltz, 1896-1984. He influenced my life in so many positive ways.

Sources


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Check List, Keystone Views, Mexican Incursion 1916

17360 17361 "Machine Gun Equipment of the 23rd U.S. Infantry In The Mexican Campaign."

17362 "Loophole Protected from Shrapnel Five-Man Deep Trenches as Used by Our Soldiers in Mexico."

17363 "A Hospital Detachment Rescuing a U.S. Soldier Who Fell in Mexico in the Pursuit of Villa."

17364 "In Marching Order - U.S. Troops Invading Mexico in Search of the Hostile Villistas."


17366 "Oregon and Mesa Streets, Near the Plaza, El Paso Texas."

17367 "U.S. Soldiers Guarding the International Bridge at El Paso, Texas."

17368 "Detail of Equipment of a U.S. Machine Gun Co. in Mexico, Each Mule Packs 2000 Rounds of Ammunition."

17369 "Model of a Temporary Bridge Such as the U.S. Infantry Are Erecting Over the Smaller Streams in Northern Mexico."

17370 "A Detachment of U.S. Infantry and Quartermasters in Mexico."

17371 "A U.S. Sergeant in Mexico in Full Field Equipment Consisting of 2 Days' Rations and 200 Rounds of Ammunition."

17372 "Company Quartermasters Camp Cotton."

17373 "Columbus, New Mexico, Scene of Villa's Raid, Now an Important U.S. Army Base."

17374 "One of Uncle Sam 's Cafeterias - Soldiers Lined Up for Rations Before Going to the Mess Tables."

17375 "Cook Tent - The Camp Mascot Waiting to be Served."

17376 "Primitive Housekeeping - Soldiers Washing Clothes."

17377 "Mess Tent, Everyone Has Been Served and All Are Happy"

17378

17379 "The Arizona Camp Water Bottle."

17380 "Hospital Scene—Vaccinating to Prevent Typhoid Fever"

17381 "Before We Eat, We 'Washup' - U.S. Soldiers in Camp"

17382 "U.S. Soldiers In Action on the Mexican Border"

17383

17384

Restoring Stereoscopic Antiques (Continued from page 9)

Even if you ever need to replace a piece of wood, it is certainly preferable to use a vintage piece of wood that might allow you to keep the original shellac surface.

Conclusion

I would like to return to my guiding question: “What would this stereoscope look like today?” Restoring always brings me closer to a possible answer even though this

(Continued on page 30)
It’s back! After a resounding success last year, the National Stereoscopic Association’s 47th Annual 3D-Con returns to the Virtual space.

This year’s convention will take place online from August 12th through 15th, 2021, and will follow a similar format as last year. We’ll feature workshops, Special Interest Group meetings, Stereo Theater, Art Gallery, Trade Fair, guest speakers, VR Worlds, and the “Stereoscopic Sessions” conference within-a-conference. Sessions can be attended via Zoom or YouTube, and special socializing features will allow you to mingle with other 3-D enthusiasts.

Steve Berezin will chair this year’s convention, with Dave Comeau again acting as Technical Director and Eric Kurland reprising his role as Theater Director.

Visit our website at 3d-con.com for more information in the coming weeks and months.

Join our Facebook group for updates and evolving conversation: facebook.com/groups/3DCon2020.

For any questions, comments, or interest in volunteering, email us at info@3d-con.com.
Until July 2009 the only option for creating digital 3-D images was to rig two digital cameras together, take two sequential photos (the “Cha-Cha” method), or to scan stereo slides made in film 3-D cameras. This radically changed with the introduction, in that year, of the Fujifilm Finepix Real 3D W1 camera. This was the first factory-made, purpose-built two-lensed digital 3-D camera. It even had an autostereo-scopic 3-D display! For 3-D photographers this was a game changer for doing digital 3-D photography!

The Fujifilm W1 made digital 3-D photography as easy as 2-D digital photography, with a camera not much larger than similar compact digital cameras. The W1 model was quickly followed, in August 2010, by an improved W3 model that was lighter, and with a better 3-D display. Both models were quickly embraced by the 3-D community.

About a year later Panasonic came out with a two-lensed 3-D camera: the Panasonic Lumix DMC-3D1. A more specialized 3-D camera, it had a smaller lens base of 25mm versus Fuji’s 75mm. It also had 25mm lenses versus Fuji’s 35mm focal length.

Having two purpose-built digital 3-D cameras gave a lot of hope to 3-D enthusiasts all over the world, looking forward to a new era of 3-D photography, along with more, and better, 3-D cameras to follow.

Sadly, the digital 3-D boom was short-lived. The Fujifilm W3 was discontinued after a few years, as was the Panasonic 3D1. 3-D TVs were discontinued in 2016, and only 3-D movies and 3-D Blu-Rays still continue in limited production.

**The GoPro “Hero 3D System”**

During the height of 3-D interest in 2011, GoPro, the innovator of the compact action “Hero” video camera, made a housing and special connector to hold, and synch, two Hero 2 model cameras, called the “Hero 3D System”.

Designed mainly for capturing action 3-D videos, in 3-D mode, the Hero 2 options are more limited than a single camera is in 2-D mode. One basically has the option to shoot 3-D videos, or stills, in an “interval (time lapse) mode” where still photos are taken at intervals that can be set from 2 seconds to 60...
seconds. I found that the interval mode could be used as a workaround for taking 3-D stills by setting the mode to 60 seconds (to allow plenty of time). Then I would press the shutter button to start the interval mode, and then quickly press the shutter button again to stop the interval mode. In this way, I would end up getting two 3-D stills, but at least I could take still 3-D photos.

There is no viewfinder on the camera, but with the very short 16mm equivalent focal length lenses the very wide angle view is easy to compose with, by just pointing it at the subject and knowing that a huge amount of the scene will be captured.

Some specifications for the Hero 2 model are: 11 megapixels with video in resolutions from 720p HD (1280 x 720 pixels) at 30 or 60 frames per second to 1080p (1920 x 1080 pixels) at 30 frames per second in NTSC. For stills the megapixels for photos can be set to 11MP with a 170˚ FOV, 8MP with 127˚, and 5MP with 170˚ or 127˚. I only ever used this camera for stills at 11 megapixels. The 11 megapixel setting is the one equivalent to a 16mm focal length lens.

The plastic housing that holds the two cameras comes with two backs. The waterproof back completely seals the cameras, so that the housing is waterproof to 196 feet. Above ground it means you just don’t have to worry about rain, water spray, or dropping your camera into any source of water. There is also a “skeleton” back, that has openings. This is intended for dry condition video shooting to allow sound to get to the microphones on the cameras. Since I am only interested in stills, I only used the waterproof back.

Without a viewfinder, settings for the cameras are viewed on a very small LCD screen on the front of the camera. There are only three controls on the 3-D camera housing. One button for the front of each camera to individually turn the cameras on, and to change modes from video to stills and other settings. A single shutter button on top is used to start and stop videos, or to take stills, as I described. It is also used in conjunction with the mode buttons to change settings for both cameras at once.

In use the advantage of this factory-made rig is that there is perfect sync between the two cameras, all located in a single housing that is compact and relatively easy to use.

For processing each camera has its own SD card, and I found the easiest method is to remove the SD cards to upload to my computer, put them in Left and Right folders, and then use StereoPhoto Maker to combine and align them into side-by-side JPEGs in a third folder.

The GoPro “Dual Hero System”

In 2013 GoPro improved upon the “Hero 3D System” with the “Dual Hero System” for the Hero 3+ Black Edition model GoPro cameras. (Note that this system works only with the Hero 3+ Black model, and not with any other Hero models, including other 3 series models.)

The second 3-D system from GoPro offered quite a few improvements over first system. First, it was designed for the Hero 3+ Black Edition cameras, which have 4K video, instead of HD 1080p, and 12 Megapixels for stills. The effective focal length is still 16 mm equivalent in 12 megapixel still mode.
In use the cameras are better integrated with just one button turning both cameras on and off, and changing modes from Video to Stills, Burst Mode (30 frames a second), Time Lapse (same as Interval on the Hero 2 model), Dual Mode, and Settings Mode. The shutter button fires both cameras in perfect synch, and the LCDs on the fronts of both cameras show matching counter numbers as each still photo is taken.

There is also a button on the housing to turn on WiFi, which theoretically can be used to control both cameras with a smart phone app or a standalone optional GoPro remote control. As of this writing, I have not used this feature, so I can't comment on how well this works, or how easy it is to use.

Another handy feature is that on the side of the right camera synch cable housing is a Mini USB outlet. Intended mainly for use with the skeleton back, which has an opening which allows access to this outlet, it can be used to connect an external video monitor, to charge both camera batteries at the same time from one USB cable, or to upload the photos from both cameras using a special cable provided with this system. That special cable has a Mini USB at one end, and two standard USB plugs at the other end, to connect to a computer for uploading both of the micro SD cards without having to remove them from the cameras. Very handy!

Since 3-D stills are my main interest, I find the “Dual Hero System” much easier to use than the earlier “Hero 3D System”. The main reason is that one can use the still camera mode, rather than the workaround that is required with the earlier system.

As far as the final results for stills, the picture quality from both systems is nearly identical, and excellent in my humble opinion. See samples included here.

For those currently interested in giving one of these rigs a try the main advantage of the earlier model is price. As of this writing in early 2021, I found only one GoPro Hero 2 camera on eBay at a Buy-it-Now price of $39. The later models are more common. The “Hero 3D System” housings are currently listed at prices starting at $30 for the complete system (without cameras) in the original box. Similar boxed ones range from that price to $90. So, depending upon your luck on eBay one might be able to put together a Hero 2 3-D rig for $100 to $200. One warning is that there seem to also be quite a few “Hero 3D System” housings offered at cheaper prices, but these appear to be the housing only. Without the orange colored special connecting cable to synch the two cameras, the housing itself is useless.

For the “Dual Hero System” with two Hero 3+ Black Edition Cameras the prices are much higher. Complete Dual Hero Systems (housing plus synch cable etc.) prices currently are ranging from $200 to $250 (without cameras). The Hero 3+ Black Edition cameras are currently on eBay starting at around $65 going up to about $120 each. So, a complete rig might run from $350 to as high as $490.

However, eBay prices change daily. If you are lucky, and keep watching, you may find a compete rig, including two cameras, of either model at a much better price. Recently I watched a complete “Dual Hero System” with two cameras sell for about $120 total on eBay. Some complete “Dual Hero Systems”, new in box, but without cameras sold for about $100.

What about the results? Both of these are specialized 3-D rigs. With a small lens base of 35mm, and with very wide angle lenses of 16mm...
focal length, you have to get very close to the subject to have strong 3-D. You can also have a very close foreground object, and still have distant subject material, and it is still easy to view in 3-D. Of course there will be the curved effect of a very wide angle lenses.

Depending upon the subject material, cropping may make this less noticeable, or you may prefer this effect for something different from more conventional 3-D cameras like the Fujifilm W3. We found that one advantage of the 11 or 12 megapixel still resolution is that one can crop quite a bit and still have a good sized file image that looks excellent, and appears to be much closer than we were in reality.

It’s another option to consider that you may not have known about, and a specialized alternative to the Fujifilm and Panasonic 3-D cameras that offers some fun options.

**Wider Base DIY**

Regarding the understandable questions about getting a wider base by taking the cameras out of the housings, I’d say the GoPro 2s could get up to a 50mm separation. (The cables are unique to the GoPros.) As for the GoPro 3+ cameras removed from the housing and positioned differently on a bar, about a 90mm separation is possible. With no tripod sockets on the cameras, conventional Z bars or others won’t work but for those interested in hacking a wider base version of the GoPro 3D rig, there is a forum discussion at dpreview.com/forums/thread/3720660.

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**Call for Papers**

The National Stereoscopic Association’s Sessions on the History of Stereoscopic Photography  
A virtual conference of the 47th 3D-Con, August 12, 2021

After the success of last year’s inaugural “Sessions on the History of Stereoscopic Photography” held virtually at the 3D-Con (annual conference), the National Stereoscopic Association is again seeking papers on the history of stereography for its second annual “Sessions.”

We seek presentations on any aspect of stereo-media from the inception of stereoscopic photography to contemporary virtual and augmented reality. Topics include but are not limited to: historical and archival discoveries; studies on collecting and the culture of stereography; marketing and incorporation; and simulation. Papers on topics from the nineteenth to the twenty-first century are invited. The conference will be held in 3-D on zoom.

Deadline for abstracts: May 15, 2021. Please email an abstract of 500 words, a biography of 250 words, and an information sheet found at 3d-con.com/files/2020NSASessionsCallforPapersSessions.docx to Melody Davis, davism6@sage.edu.

A few days before I started writing these lines I was not aware of the existence of one D.J. Johnson, a photographer from Tunbridge Wells, Kent, England. Then I received a parcel containing fourteen stereo cards which I had bought at an online auction just before Britain went into lockdown. The cards had remained at the auction house until some nice employee posted them to me. I had obviously seen a photo of a couple of the cards before I had bid on them but was pleasantly surprised to realise all of them were rather good, even though they were quite “modern” by my standards and produced at a time when most stereo cards were either taken by amateurs or imported from the United States. One, dated 1897, showed some of the decorations that were installed on the occasion of Queen Victoria’s Diamond Jubilee and that was enough.
David James Johnson was born on 12 February 1862 at Tunbridge Wells where he was to spend most of his life and also breathe his last. His parents, James Johnson (1823-after 1881) and Lucy Ann Dibley (1832-after 1911), were both from nearby Sussex and had moved to Tunbridge Wells where they opened a greengrocer’s shop around 1861, shortly after the birth of their first born child, daughter Lucy M., although James had been trained as a carpenter, like his father before him, before becoming a carriage driver. Lucy died before she reached her fifth birthday and the Johnsons did not have any other children after the birth of David James who was brought up as an only child.

The 1871 census shows us that James was still a greengrocer then, living with his wife, his son David James, then a scholar of nine, and a nineteen-year-old lodger, a needlewoman by the name of Jane S. Holden who was looking after her five-year-old brother Albert.

Ten years later the 1881 census reveals that James has become a brick-maker and that his son David James, nineteen, is now a Photographer Printer, working for one George Glanville (1846-1925), a thirty-five year old Artist Photographer who had been operating in Tunbridge Wells since the late 1860s.

From a 1940 press cutting we learn that David James Johnson started his photographic career in 1874, as a lad of twelve—so probably as an apprentice—while another short clipping, this time from 1902, states that he spent 20 years working for George Glanville. This means he left around
1894, three years after the 1891 census which still lists him as a Photographer Printer, living with his parents, and which shows that Mr. Glanville was still working then. It must be around that time that David James, according to his 1945 obituary, spent a few years as a professional photographer in the United States. I have not been able to find trace of his crossing to or from Northern America (Johnson is a very common name) but among the stereos I bought there was one captioned “Glassy Mountain, Flat Rock, North Carolina, USA.” The title pencilled on the back of the card being in the same hand as all the other captions, I assume he must have taken these sequential images—a cow drinking from the stream is only visible in one half of the picture—during his stay there. Why he went to the States in the first place is still a mystery to be solved. Maybe the answer lies on the American side of the Pond.

We know he was back in England by 1897 on account of the photograph mentioned earlier taken on the occasion of the Queen’s Diamond Jubilee and that he operated for a few years from 1, St. John’s Road, Tunbridge Wells, as is evidenced by the printed mention on all the stereo cards I have which reads:

D. J. JOHNSON, PHOTOGRAPHER
1, ST. JOHN’S ROAD, TUNBRIDGE WELLS
STEREOSCOPIC VIEWS,
LANTERN SLIDES.
General Outdoor Photography.

All the other cards I bought, numbered 45 to 700, show mostly places and people photographed in and around Tunbridge Wells, with the exception of number 700 which fea-
tures Tower Bridge, in London. I particularly like the one of the Charcoal Burner sitting on the steps of his small gypsy caravan (number 87) and the two showing The Pantiles, this Georgian colonnade which still exists in the centre of Tunbridge Wells and was originally known as The Walks then as The Parade (numbers 149 and 198). All three images were obviously taken with a binocular camera.

Since all the stereo by Johnson that I have seen so far bear the St. John’s address something tells me his stereoscopic days, although quite prolific, were short-lived. By 1900 Johnson had opened a studio at 39, High Street, in partnership with a young woman he had known since 1876, Julia Marian Bird (28 May 1867-10 April 1940), and whom he was to marry on 1 July 1905, as can be read in the 7 July 1905 issue of the Kent & Sussex Courier:

MARRIAGE


It is interesting to note that in the 1901 census, the unmarried Miss Julia Marian Bird is listed as a Photographer and an Employer but that ten years later the same person, now Mrs Johnson, is put down as merely “assisting in the business”. In 1939 she has been relegated to the rank of housewife and like all other married women staying at home she is listed as doing “unpaid domestic services.”

The Johnsons did not have any children but they went on running their photographic studio for decades. Johnson gave lectures with magic accom panied by a companion view of “Fergusons Barr” interior which had signs advertising “Allegheny Club Monongahela Rye” and “Bartholomay Lager Rochester.”

Happy New Year from “Hepburns Barr.” Unknown No. 34. The oversize cabinet mount with a pink recto and orange verso likely dates from 1885. It was accompanied by a companion view of “Fergusons Barr” interior which had signs advertising “Allegheny Club Monongahela Rye” and “Bartholomay Lager Rochester.” Maybe Pittsburgh?? Here’s a beer to cheer a better New Year! Can you identify this stereo? Your interesting and challenging Unknowns submissions and ideas are eagerly awaited.

Please email, call, or write Russell Norton at RussellNorton3D@gmail.com, (203) 281-0066, PO Box 1870, New Haven CT 06504.
On paper, geometry always seemed the most stimulating branch of math: cones, cuboids, and quadrilaterals beckoned like the Sirens of Greek mythology. But in the end, like the Greeks, my ship always crashed upon their rocks. Instead, during both middle and high school, any A earned in math was always in algebra. While geometry’s concave octagon was undeniably sexy, for some reason, I was more attracted to those nerdy x- and y-axes. And maybe that’s why I embraced stereography: How could an algebraic hound like myself resist a format that added a foreground-to-background z-axis to the dynamic x and y duo?

Apparently Charles Bierstadt also knelt at the algebraic altar: he took great pleasure in creatively entwining his three axes. A pleasurable example is his 1873 No. 34, “Watkins and Seneca Lake—On the Line of the Erie Railway.” The image is a study of horizontal lines, with each succeeding line ticking up higher on the y-axis and deeper on the z-axis.

Bierstadt did not use human subjects with regularity, so the striking conga line of people strolling across the x-axis is clearly a conscious design element. (One wonders whether he deliberately alternated darker clothing with light.) Beyond them, we discover a line of trees, two becomes the lowest horizontal line within the image. It also helps Bierstadt pull off an appealing contrast symmetry: the shaded area upfront and the far-side shore on top provide darker bookends; the sunlit grass and Seneca Lake offer lighter tonalities, and in between, the white, sun struck buildings are sandwiched between darker foliage.

It’s almost as though Bierstadt has served up a deluxe, seven-decker Oreo cookie—with people sprinkled in for flavoring. Simply put, this view is scrumptious.

Do you have a stereoview in your collection that might qualify for an Excursion into its aesthetics or, as a “one hit wonder” by its maker? If so, let Doug Heil know at heil@uwosh.edu, and share why you think the view is especially interesting.

Restoring Stereoscopic Antiques (Continued from page 20)

step of restoration or not and still being excited. Turning an old and forgotten stereoscope into a truly personal object is invaluable. It’s more than just finding it. In some way it’s also recreating it and literally becoming involved in its history.

*This petroleum-derived solvent has various names around the world. Mineral spirits in the US, white spirit in the UK, mineral turpentine in Australia and New Zealand, plus petroleum spirits or even cleaning gasoline! It’s also a prime ingredient in paint thinner.
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Nude photographs in general and stereoscopic daguerreotypes in particular are very popular among collectors. These images, usually beautifully made and very nicely sized, are greatly enhanced by the sensation of depth the stereoscope provides. Most exclusively made in France in the 1850s and 1860s these daguerreotypes may have cost the buyers a small fortune but they certainly cost the majority of the photographers who took them and the models who sat for them their freedom and more often than not their reputation.

Photo historian Denis Pellerin reveals some of the sad tales behind the micro-like surfaces of these outstanding daguerreotypes from the Bosshard collection. Much more than mere flesh, the persons who undressed in front of the camera were young women who were dreaming of a better life and did not always realize there was a huge price to pay for the easy money they were earning by flaunting their will-less charms.

Carl Mautz Publishing
329 Bridge Way
Nevada City, California 95959

European Gems
(Continued from page 29)

lantern slides and was associated with the Tunbridge Wells Amateur Photographic Association to whom he presented a large collection of slides and photographs showing Tunbridge Wells as it was in the past.

David James was still described as a photographer in the 1939 register, and again the following year in his wife's obituary. Julia Marian died on 10 April 1940, at the age of 73. Her husband followed her to the grave five years later, on 16 June 1945.

There must be more stereos by D. J. Johnson around but they do not seem to be too common. There is only one in Dr. May's extensive collection and I have only seen a few mentioned in past auctions. I would love to have more examples of his work but even if I never do it was nice to learn a little more about this late Victorian local stereographer and to share some of his images and the information I found about him with the readers of Stereo World.

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BACK ISSUES of Stereo World magazine. These are new old stock and span mainly from volume 16 (1989) to volume 27 (2000) but I have other issues too in smaller quantities. Please see my web page: http://www.3d4live.com/ or contact George Theofilis at drt-3d@live.com. 404-666-4006.

WANTED

CANADIAN VIEWS: Montreal and Quebec City stereos, larger formats and photo albums wanted! Taken before 1910. Especially Vallée, Ellisson, Notman, Parks, or other fine photographers. Email Pierre Lavole at pialavole@hotmail.com or call (418)440-7698.


COMICAL STEREOS view Sets in Good to Very Good Condition ed-mina4006@gmail.com.

HORSE-DRAWN “commercial” vehicle views: ice wagons – butcher wagons – mail wagons – milk wagons – flower wagons – funeral hearses and so on from 1915 and back as far as possible. Richard McCoy, 2719 Lakeview Ave, St Joseph, MI 49085, 269-983-5403.

I BUY ARIZONA PHOTOGRAPHS! Stereoviews, cabinet cards, mounted photographs, RP post cards, albums and photographs taken before 1920. Also interested in Xeroxes of Arizona stereographs and photos for research. Will pay postage and copy costs. Jeremy Rowe, 2120 S. Las Palmas Cir., Mesa, AZ 85202.

KEYSTONE VIEW SALESMAN MANUALS, circulars, and ephemera - originals, reprints, or xerographs wanted. The earlier the better! Email Leigh Gleason, leigh.e.gleason@comcast.net or call 951-213-1501.

LOOKING FOR AN E&H Anthony catalog of stereoviews, if such item exists! Digital or paper edition, possibly by Tex Treadwell. Contact Bill @ Bstahl73@comcast.net.

MUYBRIDGE VIEWS - Top prices paid. Also Michigan and Mining - the 3Ms. Many views available for trade. Leonard Walle, vicala1@aol.com.

PRE-1890 AMERICAN stereoviews of football, rugby and soccer wanted. Joe at Lurie@charter.net.

SINGLE VIEWS, or complete sets of “Longfellow’s Wayside Inn” done by D.C. Osborn, Artist, Assabet, Mass., Lawrence M. Rochette, 169 Woodland Drive, Marlborough, MA 01752.

WANTED

STEREO WORLD BACK ISSUES. Vol. 1, #6, Vol. 2, #1 thru 6, Vol. 3, #1 and #2. Email sw.taylor3d@gmail.com with price and condition.

STEREOS OF ACTOR EDWIN BOOTH. Contact Larry Frank Scott, attlito@verizon.net.

STUTTGART (Germany) views. Mostly looking for flat-mount views labelled “Stuttgart”, “Württemberg - Stuttgart”, “Cannstatt” or “Berg”. Also views by Brandes, Auerbreit, Schaller or Zabu. Contact Alexander by email at klein@stereoscopy.com or (415) 852-9911.

SURPRISE TISSUES wanted, especially unusual ones other then moons and clouds. Will buy or trade. Please send details to britishstereos@hotmail.com.

THE DETROIT Stereographic Society invites you to attend our monthly meetings at the Livonia Senior Center, on the second Wednesdays, September through June. Visit our website www.Detroit3D.org or call Dennis Green at (248) 398-3591.

THOMAS LEWIS (Cambridgeport) Stereoviews, 1870s. Unidentified views desired. Please, no Lexington, Concord, Ashland, Waltham or June 17, 1875 views. Joe at Lurie@charter.net.

TISSUES, hold-to-light, stereoviews, with fire, smoke, trains, moons, balloons, etc. Send photo to: cesimms@sbcglobal.net.

WILLIAM ENGLAND/LSC: American views. Need scans of: Indian women at bead-work; A wayside scene/organ-grinders; The Flume, White Mountains (with WE blindstamp). Information on boxed set of this series? Please contact Gerlind Lorch at william.england@web.de.

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Specializing in stereoview consignment auctions since 1981 with bidders and consignors worldwide. Sometimes the auctions include cdv’s, daguerreotypes, ambrotypes, and other mono imagery, also more-modern formats such as View-Master, but they are mostly stereoviews / stereocards. New bidders and consignors are Always Welcome.

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